

CLAIM AMENDMENTS

1. (Currently Amended) A system for measuring a parameter in a subsea well, comprising:
 - a riser extending from a platform adjacent ~~the~~ an ocean surface towards ~~the~~ an ocean bottom;
 - a landing string extending within the riser from the platform towards the ocean bottom;
 - and
 - a line extending along at least part of a length of the landing string and including a distributed sensor system for sensing the parameter at various points along the length of the landing string.
2. (Original) The system of claim 1, wherein:
 - the landing string extends at least partially within a pressure control equipment at the ocean bottom; and
 - the line extends at least partially within the pressure control equipment.
3. (Original) The system of claim 1, wherein the line comprises a fiber optic line.
4. (Original) The system of claim 1, wherein the parameter measured is temperature.
5. (Original) The system of claim 4, wherein the distributed sensor system comprises a plurality of sensors distributed along the length of the line.
- 6.-7. (Cancelled)
8. (Original) The system of claim 1, wherein the line is mechanically attached to the landing string.

9. (Original) The system of claim 3, further comprising:
a conduit located proximate the landing string; and
the fiber optic line located within the conduit.

10. (Original) The system of claim 9, wherein the conduit is within a control umbilical deployed as part of the landing string.

11.-16. (Cancelled)

17. (Original) The system of claim 1, wherein:
the landing string is landed on a landing shoulder located on a pressure control equipment; and
the line extends below the landing shoulder.

18. (Original) The system of claim 17, wherein:
the landing string includes a passageway having a port above the landing shoulder and a port below the landing shoulder, each port providing communication to the exterior of the landing string; and
the line is extended below the landing shoulder by passing the line through the passageway and the ports past the landing shoulder.

19. (Original) The system of claim 18, wherein:
the line is a fiber optic line;
a conduit is located proximate the landing string and is aligned with the passageway port located above the landing shoulder; and
the fiber optic line is located within the conduit and is extended below the landing shoulder by passing the line through the passageway and the ports past the landing shoulder.

20. (Original) The system of claim 19, wherein the fiber optic line is deployed by pumping the fiber optic line through the conduit and passageway.

21. (Original) The system of claim 20, wherein:
a second conduit is aligned with the passageway port located below the landing shoulder;
the fiber optic line is located within the conduit, is extended below the landing shoulder
by passing the line through the passageway and the ports past the landing shoulder, and extends
within the second conduit; and
the fiber optic line is deployed by pumping the fiber optic line through the conduit,
passageway, and second conduit.

22.-27. (Cancelled)

28. (Currently Amended) A method for measuring a parameter in a subsea well,
comprising:
deploying a landing string within a riser, the landing string and riser extending from a
platform on ~~the~~ an ocean surface towards ~~the~~ an ocean bottom;
deploying a line along at least part of a length of the landing string, the line including a
distributed sensor system for sensing the parameter at various points along the length of the
landing string ; and
measuring the parameter at the various measurement points along the length of the
landing string.

29. (Cancelled)

30. (Original) The method of claim 28, wherein the measuring step comprises
measuring temperature at the various measurement points along the length of the landing string.

31. (Original) The method of claim 30, wherein the line comprises a fiber optic line
and the measuring step comprises transmitting light through the fiber optic line and analyzing the
returned back-scattered light to provide a complete temperature profile along the length of the
fiber line.

32.-35. (Cancelled)

36. (Original) The method of claim 28, wherein:
the deploying the landing string step comprises landing out the landing string at a landing shoulder located on a pressure control equipment; and
the deploying the line step comprises extending the line below the landing shoulder.

37.-55. (Cancelled)

56. (New) The system of claim 1, wherein the landing string extends in an interval within the riser from the platform toward the ocean bottom and the distributed sensor system is adapted to sense the parameter at various points along the interval.

57. (New) The system of claim 56, wherein the landing string is in communication with a well formation.

58. (New) The method of claim 28, wherein the act of deploying the line along at least part of a length of the landing string comprises deploying the line along an interval of the landing string extending above the ocean bottom such that the distributed sensor system is adapted to sense the parameter at various points above the ocean bottom.

59. (New) The method of claim 58, wherein the landing string is in communication with a well formation.